

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

PCT/EP2003/006024



518,500

(PCT Article 36 and Rule 70)

Rec'd PCT/PTO 23 JUN 2005

Applicant's or agent's file reference Cas 2099PCT/MS	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/006024	International filing date (day/month/year) 10 juin 2003 (10.06.2003)	Priority date (day/month/year) 21 juin 2002 (21.06.2002)
International Patent Classification (IPC) or national classification and IPC G02F 1/1339		
Applicant ASULAB S.A.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 07 janvier 2004 (07.01.2004)	Date of completion of this report 16 September 2004 (16.09.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/006024

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages _____ 1-15 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____ 1-17 _____, filed with the letter of _____ 07 April 2004 (07.04.2004)
- ☒ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____ 1/7-7/7 _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	2-5, 7, 8, 16, 17	YES
	Claims	1, 15	NO
Inventive step (IS)	Claims	2-5, 7, 8, 16, 17	YES
	Claims	1, 6, 9-15	NO
Industrial applicability (IA)	Claims	1-17	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: EP-A-0 526 232 (SEIKO EPSON CORP) 3 February 1993
(1993-02-03)

D2: WO 00 45360 A (SAITOH HIROMI; SEIKO EPSON CORP (JP)) 3
August 2000 (2000-08-03)

I. A. Document D1 describes (page 3, lines 43-55) a method for producing a device (a liquid crystal display) defining a volume (figure 1) for confining a fluid or a sensitive material capable of undergoing a change in physical, in particular optical, properties under the application of a voltage, or in electrical properties under an applied stress or radiation, wherein said device includes at least a first front substrate and at least a second rear substrate kept at a constant mutual spacing, said substrates being joined via a partition (seal 5) that defines the volume (8) confining the sensitive medium or the fluid.

This method is characterised in that it comprises the following steps: structuring, on one of the substrates, at least one partition (5) that defines, via the inner side surface thereof, the volume confining the sensitive medium

or the fluid; joining the second and the first substrates (page 3, line 50); adding a sealing material (13) capable of flowing in the gap defined by the outer side surface of the partition and the two stacked substrates until at least one portion of the volume of said gap (22) is filled with the sealing material; and solidifying said sealing material until it forms a sealing joint (page 9, lines 54-55).

Therefore, the subject matter of claim 1 is not novel (PCT Article 33(2)).

B. Dependent claims 6 and 9-14 do not contain any feature which, in combination with claim 1, to which they refer, defines subject matter that meets the requirements of novelty and/or inventive step of the PCT for the following reasons:

The method for incorporating the sealing material, the techniques for structuring the walls and the selected material appear to be obvious options for a person skilled in the art.

C. The subject matter of claim 15 is not novel. It is clear that the joint (13) contacts on one side the outer surface of the partition (5) and on the other the outside atmosphere.

II. A. Document D2 describes (cf. figure 9(A)) a device defining a volume (36) for confining a fluid or a sensitive material capable of undergoing a change in physical, in particular optical, properties under the application of a voltage, or in electrical properties under an applied stress or radiation (a liquid crystal material), wherein said device includes at least a first front substrate (31) and at least a second rear substrate

(30) kept at a constant mutual spacing, said substrates being joined via a sealing joint (200) that defines the volume confining the sensitive medium or the fluid, the sealing joint consisting of a fill channel defined between two partitions.

Consequently, the subject matter of claim 16 differs from said device in that: an aperture (18) communicating with the fill channel is provided in one of the substrates or in the partition.

Therefore, the subject matter of claim 16 is novel (PCT Article 33(2)).

It appears from document D2 that the sealing material is added before the two substrates are joined.

Starting with document D2 as the closest prior art, the problem that the present invention aims to solve is that of providing an alternative solution to the method described in document D2.

The solution proposed in claim 16 enables the sealing material to be added after the two substrates are joined.

D2 contains no indication that would lead a person skilled in the art to consider that the step of filling the channel is an important step and thus to seek an alternative solution.

The subject matter of claim 16 is considered to involve an inventive step (PCT Article 33(3)).

III. Claim 2 mentions the following additional steps: structuring, on one of the substrates, at least one fill

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channel, defined by two partitions,
joining the two substrates and
adding the sealing material to said fill channel.

Claim 2 therefore meets the requirements of novelty and
inventive step of the PCT for the reasons given in
paragraph II above.

Claims 3-5, 7, 8 and/or 17 are dependent on claim 2 and/or
claim 16 and therefore also meet, as such, the
requirements of novelty and inventive step of the PCT.